IN THE CLAIMS:

1. (Currently amended)   An apparatus for the dynamic allocation of processing resources of a host processor resources by a communication device, wherein the communication device comprises a plurality of data transfer-related operations and at least one non-data transfer operation, and wherein the apparatus comprises a host processor that comprises:

a complexity controller that controls the allocation of the amount of processing resources between the plurality of data transfer-related operations and the at least one non-data transfer operation by determining to execute at least one data transfer-related operation of the plurality of data transfer-related operations; and

a processing unit, coupled to the complexity controller, that executes the at least one data transfer-related operation of the plurality of data transfer-related operations based on the determination to execute at least one data transfer-related operation.

2. (Original)   The apparatus of claim 1, wherein the apparatus further comprises an interface apparatus coupled to the processing unit.

3. (Original)   The apparatus of claim 1, wherein the complexity controller further determines a condition of a communication channel.

4. (Original)   The apparatus of claim 3, wherein the complexity controller further determines a quality metric based on the determined condition of the communication channel, and wherein the determination to execute at least one data transfer-related operation is based on the quality metric.

5. (Original)   The apparatus of claim 4, wherein the apparatus further comprises a quality of service requirement and wherein the determination to execute at least

2

one data transfer-related operation is based on the quality of service requirement and the determined quality metric.

6. (Original) The apparatus of claim 1, wherein the complexity controller further determines an available processor resourceand wherein the determination to execute at least one data transfer-related operation is based on the determined available processorresources.

7. (Currently amended)   A method for dynamically allocating an amount of processing resources of a host processor ~~resources~~ by a communication device, wherein the communication device comprises a plurality of data transfer-related operations and at least one non-data transfer operation, and wherein the method comprises the steps of:

determining to execute at least one data transfer-related operation of the plurality of data transfer-related operations; and

allocating the amount of processering resources between the plurality of data transfer-related operations and the at least one non-data transfer operation based on the determination to execute the at least one data transfer-related operation of the plurality of data transfer-related operations.

8. (Currently Amended)   The method of claim 7, ~~further comprising~~ wherein in the step of determining, a condition of a communication channel is determined.

9. (Original) The method of claim 8, further comprising the step of determining a quality metric based on the determined condition of the operating channel, and wherein the step of determining to execute at least one data transfer-related operation is based on the determined quality metric.

10. (Original) The method of claim 9, further comprising the step of determining a quality of service requirement and wherein the determination to execute at least

3

one data transfer-related operation is based on the quality of service requirement and the determined quality metric.

11. (Original) The method of claim 7, further comprising the step of determining a resource load of the processor, and wherein the determination to execute at least one data transfer-related operation is based on the determined resource load of the processor.

12. (Original) The method of claim 7, further comprising the step of executing at least one data transfer-related operation in response to the determination to execute at least one data transfer-related operation.

13. (Currently amended)   A method for dynamically allocating an amount of processing resources of a host processor ~~resources~~ by a communication device, wherein the communication device comprises a plurality of data transfer-related operations and at least one non-data transfer operation, and wherein the method comprises the steps of:

        determining a condition of a communication channel; and

        allocating the amount of process~~ing~~ resources between the plurality of data transfer-related operations and the at least one non-data transfer operation based on the determined condition of the communication channel.

14. (Original) The method of claim 13, further comprising the step of determining a quality metric based on the determined condition of the communication channel.

15. (Original) The method of claim 13, further comprising the step of determining to execute at least one data transfer-related operation of the plurality of data transfer-related operations based on the determined condition of the communication channel.

4

16. (Currently Amended)   The method of claim 15, wherein the step of allocating the ~~plurality~~ amount of processe~~r~~ing resources comprises the step of allocating the ~~plurality~~ amount of processe~~r~~ing resources based on the determined condition of the communication channel and on the determination to execute at least one data transfer-related operation.

5